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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,758	12/23/2005	Joachim Antonissen	09997.0124USWO	6616
23552 7590 04/28/2011 MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903				
EXAMINER YANG, JIE				
ART UNIT		PAPER NUMBER		
1733				
MAIL DATE		DELIVERY MODE		
04/28/2011		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/539,758

**Applicant(s)**

ANTONISSEN ET AL.

**Examiner**

JIE YANG

**Art Unit**

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 March 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 and 9-31 is/are pending in the application.
- 4a) Of the above claim(s) 9-19 and 21-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-940)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date 3/8/2011.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Claims 1 and 7 have been amended; claim 8 has been cancelled; claims 9-19, 21-31 are withdrawn from consideration as non-elected claims; and claims 1-7 and 20 remain for examination, wherein claim 1 is an independent claim.

#### ***Status of the Previous Rejection***

Previous rejections of claims 1, 7, and 8 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn in view of the Applicant's amendment and remarks filed on 3/8/2011.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 20 are rejected under 35 U.S.C. 103(a) as being obvious over Nomura et al (US 5,470,529, thereafter US'529) in view of Yokoi et al (US 6,589,369 B2, thereafter US'369).

US'529 in view of US'369 is applied to the instant claims 1-7 and 20 for the same reason as stated in the previous office action marked 10/8/2010.

Regarding the amended feature of including 0-10 Vol% martensite in the instant claim 1, US'369 teaches the microstructure of US'369's alloy having ferrite as the main phase and controlling forming retained austenite, bainite and martensite phases (tables 2, 4 and Col.13, line 49 to Col.14, line 14 of US'369). The different portions of phases taught by US'369, for example samples C-1 to C-6 in table 2 and samples A-1 to A-9 in table 4 of US'369 overlap the claimed 30-75Vol% ferrite, 10-40Vol% bainite, 0-20Vol% retained austenite, and 0-10Vol% martensite as recited in the instant claim.

Regarding the amended feature in the instant claim 7, US'529 teaches that: "...the Al content is greater than 0.10% and not greater than 2.0% preferably in the range of 0.25-2.0%, and more preferably in the range of 0.50-1.5%." (Col.7, lines 65-67 of US'529), which overlaps the claimed Al: between 11200ppm and 15000ppm as recited in the instant claim.

### ***Response to Arguments***

Applicant's arguments filed 3/8/2011 have been fully considered but they are not persuasive. Regarding the arguments related to the amended features in the instant claims, the Examiner's position is stated as above.

Regarding the "Declaration under 37 C.F.R. 1.132" filed on 3/8/2011, it has been considered but is insufficient to overcome the rejections of claims 1-7 and 20 because firstly, the argued property of minimum cross tension strength of spot welds is not claimed in the instant claims; Secondly, both of US'529 and US'369 teach the acceptable P content is 0.1 or less (Col.8, lines 29-34 of US'529 and Col.10, lines 10-13 of US'369), which overlaps the claimed 0.04-0.1wt%P (claim 1) or 0.06-0.1wt%P (claim 7). It is a prima facie case of obviousness. SEE MPEP 2144.05 I; Thirdly, US'529 teaches that: "...the Al content is greater than 0.10% and not greater than 2.0% preferably in the range of 0.25-2.0%, and more preferably in the range of 0.50-1.5%." (Col.7, lines 65-67 of US'529), which overlaps the claimed Al: between 11200ppm and 15000ppm as recited in the instant claims. The Examiner notes that US'529 teaches that: "P is another incidental impurity and adversely affects weldability and ductility. Preferably, P is limited to 0.1% or less, although it should be minimized as much as possible. In order to assure uniform distribution of polygonal ferrite grains, it is more preferable that the P content be 0.02% or less." (Col.8, lines 29-34 of US'529) and US'369 teaches that: "P is an undesirable impurity and the lower its content, the better. When its content exceeds 0.1%, workability and weldability are adversely affected, and so is fatigue property. Therefore, its content has to be 0.1% or less." (Col.10, lines 10-13 of US'369), which has no conflict to the conclusion recited from the instant "Declaration under 37 C.F.R. 1.132" filed on 3/8/2011: P should be less than 0.1wt%P; and 0.02wt%P sample has better minimum cross tension strength of spot welds than that of

0.08wt%P sample. Therefore, the Applicant had not shown unexpected result over the prior arts.

Regarding the Applicant's argument in the remarks filed on 3/8/2011, which corresponding to the Applicant's "Declaration under 37 C.F.R. 1.132" filed on 3/8/2011, the Applicant argued: although both documents put an upper limit of 0.1wt% for P, they are both advising the skilled reader to keep the p-level as low as possible, which agains the instant ionvention for a deliberate p-addition in a range of 0.04-0.1wt% (claim 1) or 0.06-0.1wt% (claim 7). In response, The Examiner disagrees with the Applicant's argument, refer to the discussion to the Applicant's "Declaration under 37 C.F.R. 1.132" filed on 3/8/2011 above, both of of US'529 and US'369 teach the acceptable P content is 0.1 or less (Col.8, lines 29-34 of US'529 and Col.10, lines 10-13 of US'369), which is a similar conclusion as shown in the instant "Declaration under 37 C.F.R. 1.132": above 0.1wt%P weldability becomes unsatisfactory (Point 7 in the Applicant's "Declaration uncer 37 C.F.R. 1.132" filed on 3/8/2011). Furthermore, from the data provided by the Applicant in the instant "Declaration under 37 C.F.R. 1.132", 0.02wt%P sample has better minimum cross tension strength of spot welds than that of 0.08wt%P sample (refer to the Fig. in the instant "Declaration under 37 C.F.R. 1.132" and remarks filed on 3/8/2011), which does not support the Applicant statement that preffered P should be even higher than 0.06wt%P as argued in the instant remarks.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jie Yang whose telephone number is 571-2701884. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-2721244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JY

/ Roy King/  
Supervisory Patent Examiner, Art Unit 1733